

## **REMARKS**

In view of the above amendments and following remarks, reconsideration and further examination are requested.

By the current Amendment, claims 2, 11, 12 and 16 have been cancelled, and claims 1, 5 and 6 have been amended so as to further define the instant invention.

In the Office Action mailed April 15, 2004, claims 1, 2, 4, 5 and 25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sandhu et al. Claims 6, 8 and 9 were rejected under 35 U.S.C. § 102(e) as being anticipated by Arai et al. Claims 3, 12, 13, 16, 19, 23 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandhu et al. in view of Arai et al. And, claims 6 and 8-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandhu et al. in view of Birang et al. The references relied upon by the Examiner are not applicable with regard to the currently pending claims for the following reasons.

Claim 1 recites a polishing apparatus that comprises *inter alia*

...a polishing surface...a dresser...and  
a sensor for observing irregularity or undulation of a  
first area of said polishing surface that is dressed by said dresser  
and a second area of said polishing surface that has not been  
dressed by said dresser, while said polishing surface is being  
dressed by said dresser, said sensor being mounted on said dresser,  
wherein said sensor is angularly moveable together with  
said dresser over the first area and the second area to measure an  
amount of a material of the first area that has been worn off, while  
using the second area as a reference surface.

Similarly, each of claims 5 and 6 recites a polishing apparatus that comprises *inter alia*

...a polishing surface...a dresser...and  
a sensor for observing a property of a first area of said  
polishing surface that is dressed by said dresser and a second  
area of said polishing surface that has not been dressed by said  
dresser, while said polishing surface is being dressed by said dresser,  
said sensor being mounted on said dresser...  
wherein said sensor is angularly moveable together with  
said dresser over the first area and the second area to measure an  
amount of a material of the first area that has been worn off, while  
using the second area as a reference surface.

A polishing apparatus including such a sensor is not taught or suggested by any of the references relied upon by the Examiner.

In this regard, sensor 190 of Sandhu et al. is used to determine locations and/or thicknesses of waste matter accumulations 150 across planarizing surface 142; however, sensor 190 is not used to measure an amount of a material of a polishing surface that has been worn away. Accordingly, Sandhu et al. does not disclose or suggest a sensor that is **angularly moveable together with said dresser over the first area and the second area to measure an amount of a material of the first area that has been worn off, while using the second area as a reference surface**, as recited in each of independent claims 1, 5 and 6. Thus, none of claims 1, 5 and 6 are anticipated by Sandhu et al., whereby these claims and their dependent claims are allowable over Sandhu et al.

Similarly, while Arai et al. discloses a sensor 19 for observing a property of a polishing surface, this sensor is not angularly moveable together with dresser 16. Accordingly, Arai et al. does not disclose or suggest a sensor that is **angularly moveable together with said dresser over the first area and the second area to measure an amount of a material of the first area that has been worn off, while using the second area as a reference surface**, as recited in each of independent claims 1, 5 and 6. Thus, none of claims 1, 5 and 6 are anticipated by Arai et al., whereby these claims and their dependent claims are allowable over Arai et al.

These deficiencies of Sandhu et al. and Arai et al. are not remedied by Birang et al., because sensor 260 of pad profiler 200 of Birang et al. is not angularly moveable together with dresser 130. Accordingly, Birang et al. also does not disclose or suggest a sensor that is **angularly moveable together with said dresser over the first area and the second area to measure an amount of a material of the first area that has been worn off, while using the second area as a reference surface**, as recited in each of independent claims 1, 5 and 6.

Thus, none of claims 1, 5 and 6 are obvious over any of the references relied upon by the Examiner, either taken alone or in combination, whereby claims 1, 3-6, 8-10, 13, 19 and 23-25 are allowable.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

Shozo OGURI et al.

By:



Joseph M. Gorski

Registration No. 46,500

Attorney for Applicants

JMG/edg  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
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